



DYNAMIC TRENDS IN LIVESTOCK, POULTRY, AND FISHERY INDUSTRIES IN JHARKHAND : FUTURE SCOPE FOR EMPLOYMENT, INCOME AND FOOD SECURITY

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ABSTRACT

The state of Jharkhand serves as a prime example of the intricate interaction between geographical, demographic, and economic elements within the Indian subcontinent. Its agriculture, forestry, fishing, and livestock sectors play a crucial role in the state's economy, generating employment opportunities, particularly in rural areas, and contributing to poverty alleviation and economic diversification. Collectively, these sectors shape Jharkhand's GDP, fostering a path of balanced and sustainable economic development. They also provide essential raw materials for industries, ensure food security, and promote environmental conservation. Additionally, livestock and fisheries contribute to foreign exchange earnings, enhancing the state's economic resilience. This article highlights the changing dynamic trends of allied activities of agriculture like livestock, poultry and fishery in Jharkhand that not only diversify the agriculture income but also open new avenues of food and employment security along with propagating sustainable economic development in the state.

KEYWORDS: Livestock, Poultry, Fishery, sustainable agriculture, food security, Employment and Income

INTRODUCTION

Even though Jharkhand State boasts abundant and valuable natural resources, particularly minerals and forests, 80% of its population lives in 32,620 villages and primarily relies on agriculture and related activities for their sustenance. A key priority for the development of Jharkhand is to promote sustainable agricultural and rural development. The State is rich in minerals and has a high potential to contribute in state GDP through agriculture and its allied activities.

This study aims to conduct a comprehensive analysis of the factors influencing the evolving landscape of livestock, poultry and fishing outputs in Jharkhand. By providing valuable insights to policymakers, stakeholders, and the broader community, this article seeks to contribute to development of primary sector in the region. Understanding the dynamic trends in these critical sectors is essential for making informed decisions amidst significant economic and environmental transformations. Jharkhand has witnessed a consistent upswing in agriculture and associated activities.

The state relies on 7.9 million hectares of agricultural land to support 80% of its rural population. The region's rich mineral and timber resources foster ideal conditions for the growth of farming, horticulture, and forestry. The fertile soil, rich in organic matter, significantly boosts agricultural output. Additionally, forest biomass contributes to soil fertility, improving land and water management. This sector encompasses farming, gardening, animal husbandry, and food processing. However, it faces obstacles such as climate change and disparities in land distribution. The farmers of the state depends on monsoon for farming activities and changing climate has led the farming activities to face the vagaries of nature. Hence there is a need

to diversify the agricultural sector and unfold the emerging dynamic potentials in the allied activities of farming.

The economic landscape of Jharkhand is marked by a blend of challenges stemming from its unique geographical, demographic, and economic characteristics. Despite the significant contributions of agriculture, forestry, fishing, and livestock sectors to the state's economy, Jharkhand continues to grapple with persistently low Gross State Domestic Product (GSDP) and substantial disparities in per capita income compared to the national average. These disparities underscore the economic hurdles faced by the state, necessitating a comprehensive understanding of the factors influencing the performance of these sectors.

This study endeavours to unravel the intricate dynamics of these sectors and examine their interactions with broader economic dynamics and evolving conditions. By addressing the problem, the research aims to offer actionable insights for policymakers, stakeholders, and the wider community to facilitate informed decision-making and promote inclusive and sustainable development in Jharkhand. The focal points include identifying the underlying causes of the economic challenges confronting Jharkhand, particularly concerning its livestock, poultry and fishing outputs.

Objective of the study:

- To examine the dynamic trend of poultry, fishing and livestock in the economy of Jharkhand

Livestock and Poultry:

Livestock plays a vital role in the economic prosperity of farmers, with mixed husbandry practices seamlessly blending

agriculture and animal rearing to optimize resource utilization. Livestock contributes essential products such as dairy, poultry, and protein sources, while their waste serves as valuable fertilizer, crucial for robust development and growth. Notably, milk production in Jharkhand has experienced significant growth, surging from 18.94 lakhs MT in 2016–17 to 26.29 lakhs MT in 2021–22 (as illustrated in figure 1.4). Moreover, the quantity of eggs produced has risen by 72 percent between 2016-17 and 2021-22. Additionally, meat production has shown consistent growth over the years, increasing from 0.55 lakhs MT in 2016–17 to 0.79 lakhs MT in 2021-22 (as depicted in table 1.3 given below)

Cattle	1,12,23,052	Dogs	1,20,396
Buffaloes	13,50,313	Rabbits	24,207
Sheep	66,41,183	Fowl	2,30,04,582
Goats	91,21,173	Ducks	17,04,990
Horses and Ponies	1,378	Turkeys	34,278
Mules	73	Other Poultry Birds	60,480
Donkeys	400	Total Livestock	2,36,14,545
Pigs	12,76,973	Total Poultry	2,48,32,906

Source: 20th Livestock Census-2019, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India
Total Livestock and Poultry (Table 1.1)

	2019	2012	% Change from 2012
Cattle	1,12,23,052	87,30,083	28.56
Buffaloes	13,50,313	11,85,942	13.86
Sheep	66,41,183	5,82,925	1,039.29
Goats	91,21,173	65,81,449	38.59
Horses and Ponies	1,378	5,706	-75.85
Mules	73	3,890	-98.12
Donkeys	400	381	4.99
Pigs	12,76,973	9,62,367	32.69
Total Livestock	2,36,14,545	1,80,52,746	30.81
Total Poultry	2,48,32,906	1,35,59,528	83.14

Source: 20th Livestock Census-2019, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India
Total Livestock and Poultry and change between 2012 and 2019 (Table 1.2)

The above table clearly indicates that the livestock and poultry sector has shown a varied trend with sound positive change in the number of cattle, buffaloes, sheep, goats, donkeys and pigs. The percentage growth in the population of sheep has shown a tremendous change between 2012 and 2019. The population of horses and ponies and mules have gone down from 2012 to 2019 according to the table 1.2.

Year	Eggs (No. in Billion)	Meat (in Lakh MT)
2016-17	0.5100	0.5473
2017-18	0.5530	0.5755

2018-19	0.6350	0.6248
2019-20	0.6930	0.6725
2020-21	0.7750	0.7024
2021-22	0.8760	0.7868

Source: Department of Agriculture, Animal Husbandry & Cooperative, Govt. of Jharkhand
Year wise Production of Livestock Products in Jharkhand (Eggs & Meat) (Table 1.3)

The production of livestock products, eggs and meat both have shown an upward trend. As per the table 1.3 the production of eggs which was 0.5100 billion in 2016-17 has gone up to 0.8760 billion in 2021-22. Similarly the production of meat which was 0.5473 lakh MT in 2016-17 has increased to 0.7868 lakh MT in 2021-22. These data shows the potential of the trend of allied activities in the state.

Year	Milk Production (Lakhs MT)
2016-17	18.9380
2017-18	20.1562
2018-19	21.8305
2019-20	23.2116
2020-21	24.3402
2021-22	26.2937

Source: Department of Agriculture, Animal Husbandry & Cooperative , Govt. of Jharkhand
Year Wise Production of Milk in Jharkhand (Lakhs MT) (Table 1.4)

The upward trend of the production of milk in Jharkhand also shows the promising source of food , nutrition and income in the state. The production of milk which was 18.9380 lakhs MT in 2016-17 has increased to 26.2937 lakhs MT as evident from the table 1.4.

Fisheries:

Fisheries represent one of the most promising sectors in food production, encompassing both fishing and aquaculture. This sector not only significantly contributes to food production but also serves as a crucial source of employment in rural areas.

Year	Production (in lakh tonnes)
2017-18	1.90
2018-19	2.08
2019-20	2.23
2020-21	2.38
2021-22	2.57

Source: Handbook on Fisheries, Ministry of fisheries, Animal Husbandry & Dairying, Govt.of India
Year wise Production in Jharkhand (Production in Lakh tonnes) (Table 2.1)

Fish production in Jharkhand has witnessed substantial growth between 2017-18 and 2021-22. In 2017-18, the state produced 1.90 lakh tonnes of fish, while in 2021-22, the production reached 2.57 lakh tonnes. The production escalated to 2.08 lakh tonnes in 2018-19, experiencing a further increase of 7.2 percent

in 2019-20. By 2021-22, fish production had reached 2.57 lakh tonnes. The data presented in the above table illustrates a consistent upward trend in yearly fish production in Jharkhand.

Furthermore, there has been a notable increase in fish seed production in the region from 2016-17 to 2020-21. In 2016-17, the production stood at 41,501 lakh fry, experiencing a significant surge in subsequent years. By 2017-18, the production more than doubled, reaching 103,349 lakh fry, and this upward trend continued into 2018-19 with a slightly higher production of 103,629 lakh fry. The latest data from 2020-21 indicates continued growth in fish seed production.

Year	Fish seed production (in Lakh Fry)
2016-17	41501
2017-18	103349
2017-19	103629
2019-20	105692
2020-21	114950

Source: Handbook on Fisheries Statistics, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India

Year-Wise Fish Seed Production in Jharkhand (Production in Lakh Fry) (Table 2.2)

The consistent increase in fish seed production, reaching 114,950 lakh fry (as indicated in Table 2.2), reflects positive advancements in the aquaculture sector. This contributes to overall improvements in fisheries resources and the economy.

Nature	Fishermen	Fisherwomen
Full Time	14,500	3,200
Part Time	34,450	12,800
Occasional	35,700	16,200
Unspecified time	21,400	18,700
Total	94,497	46,400

Source: Handbook on Fisheries Statistics, Ministry of Fisheries, Animal Husbandry & Dairying, Government of India

Fisherpersons' Population in Jharkhand and their Classification (Table 2.3)

Regarding the fisherpersons' population and their classification, Table 6.18 provides a comprehensive overview. In the year 2019-20, the State had over 1.40 lakh fisherpersons. Among them, approximately 30% were fisherwomen. The population includes approximately 14,500 full-time fishermen and 34,540 part-time fishermen. The total number of fisherwomen in the population is 46,400.

CONCLUSION

The study successfully highlights the increasing trends of diversified agriculture sector that has a huge potential to ensure the secondary source of income to the farmers in Jharkhand. The dynamic positive trend of livestock, poultry and fishery shows the high potential of allied sector that comes as a shock to the state which is prone to drought spell and uncertainty of

monsoon. The dynamic trend of these sectors also promotes the sustainable economic development in the state. The livestock sector presents an opportunity for enhancing milk, meat, and egg production in the state. There is significant potential for establishing food processing facilities, including those focused on milk, meat, fishery and eggs.

In the agricultural development of Jharkhand, apart from technological progress, timely availability of cost-effective and innovative inputs is crucial. The potential lies in the expansion of milk, meat, and egg production, along with the establishment of food processing units for fruits, vegetables, milk, meat, and forest products. However, these endeavours require a robust agricultural marketing system that ensures farmers receive profitable returns. The consistent increase in the production of milk, meat, eggs, cattle, poultry, and fishery products, underscores the government's unwavering commitment to this sector.

Nonetheless, challenges persist due to the adverse effects of climate change and the uneven distribution of land, which hinder agricultural advancement. Government interventions, such as the Seed Distribution Programme, Jharkhand Krishi Rin Maafi Yojana, Krishi Samridhhi Yojana, Samekit Birsa Gram Sah-Krishak Pathshala, Agri Clinic, Krishi Mela, Kisan Call Center/Krishak Help Line, and Infrastructure Development, have significantly accelerated the progress of agriculture and related activities in the state.

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